

MPM 2D

Name: _____ Date: _____

Review

The data in the table shows the height of a model cannonball, h , and the horizontal distance it travels, x .

a) Use the data in the table to create a scatter plot. Then draw a curve of good fit.
 b) Determine an equation for the curve you drew in factored form.
 c) Use your equation to determine the height of the cannonball after it has traveled for 10m in a horizontal direction.

Horizontal Distance, x	Height, h
7	23
18	47
24	56
33	46
44	19

What level are you at?

Level 1: _____ Level 2: _____ Level 3: _____ Level 4: _____

Sep 20-9:43 AM

MPM 2D

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REALITY CHECK IN!

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Sep 20-9:43 AM

18 47
24 56
33 46
44 19

$y_1 \sim ax^2 + bx + c$

STATISTICS
 $R^2 = 0.9886$
 $a = -0.0894799$
 $c = -5.922$

REGRESSIONS
 $a = -0.0894799$
 $b = 4.76228$
 $c = -5.922$

$y = -0.10x^2 + 4.76x - 5.9$
 $y = -0.10(x - 1.3)(x - 48.6)$
 $R^2 = \text{goodness of fit} = 99\%$

Apr 6-12:27 PM

Extend Chapter Task p.188

Review Ques. p. 187 q. 1-8

(4,5,6)

Apr 3-8:12 AM

q11 of X ints -6, 2 y int -9

d)

$y = a(x-r)(x-s)$
 $y = a(x+6)(x-2)$
 $-9 = a(0+6)(0-2)$
 $-9 = a(6)(-2)$
 $-9 = a(-12)$
 $\frac{-9}{-12} = a$
 $a = \frac{3}{4}$
 $y = \frac{3}{4}(x+6)(x-2)$
 $y = \frac{3}{4}(x^2 - 2x + 6x - 12)$
 $y = \frac{3}{4}(x^2 + 4x - 12)$
 $y = \frac{3}{4}x^2 + 3x - 9$

Apr 3-12:11 PM

Rev = (price) (tickets)

$= (\$1)(12000)$
 $= 12000$

Rev = $(1 + 0.10x)(12000 - 400(x))$
 MAX revenue - vertex

Apr 3-12:25 PM